Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KAZUSHIGE OKUTSU, TETSUO UEDA,
YUKIO FUKUSHIMA and TOSHIO KAKIHARA

Appeal No. 2002-0344
Application No. 09/114,584

ON BRIEF

Before HAIRSTON, KRASS and BLANKENSHIP, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-6.

The invention is directed to a system for starting a data storage unit, best illustrated by reference to representative independent claim 1, reproduced as follows:

> 1. A method for starting a magnetic disk drive data storage unit in a computer, the storage unit having an actuator arm which supports a flexible cable, comprising the steps of:

(a) turning on power to the data storage unit;

(b) executing a start operation for the storage unit, comprising (i) executing internal diagnostic program, (ii) rotating the spindle motor and (iii) reading microcode and stored tension data for the flexible cable;

(c) executing any unexecuted access command from the computer; and

(d) executing generation of corrected tension data for the flexible cable, following step (c).

The examiner relies on the following references:

Bertschy et al. (Bertschy)	4,589,036	May 13, 1986
Blackborow et al. (Blackborow)	5,065,262	Nov. 12, 1991

In addition, the examiner relies on appellants' admitted prior art (APA), as represented by pages 1-5 of the specification and Figures 1 and 2.

Claims 1-6 stand rejected under 35 U.S.C. §103 as unpatentable over APA, Bertschy and Blackborow.

Reference is made to the briefs and answer for the respective positions of appellants and the examiner.

OPINION

In accordance with the grouping of claims at page 4 of the principal brief, all claims will stand or fall together. Therefore, we will focus on instant claim 1.

The examiner maintains that APA, in Figure 1, teaches a magnetic rotary disk drive 10 with an actuator arm 14, a flexible cable 16, a transducer 12 and a suspension

arm 13. The examiner also maintains that Figure 2 of APA teaches turning on power to a data storage unit by showing item 50. Elements 51-53 of APA Figure 2 are said to show executing a start operation for the storage unit by executing internal diagnostic programs, rotating the spindle motor to a predetermined rotational speed and reading a microcode. The examiner asserts that "executing generation of corrected tension data for the flexible cable" is taught by item 54 in APA Figure 2.

The examiner recognizes that APA does not teach causing an access command from the computer to be in an executable state or executing the access command using tension data for the flexible cable generated before the power was turned on. The examiner turns to Bertschy for a disclosure, at column 3, lines 64-68, of a slider position upon start up being the previous powered down position, and, at column 1, lines 25-28, of using the transducer head to access the recording area of the respective disk.

The examiner concludes that it would have been obvious "to modify the disk drive access system taught by [APA], to include [the] disk drive system of Bertschy...wherein start-up accessing is began [sic] from the previous powered-down transducer location. This provides for a reduction in necessary transducer arm movement required by the new access, as taught by Bertschy..." [answer-page 4].

The examiner recognizes that even the combination of APA and Bertschy does not teach detecting and executing previously unexecuted commands, so the examiner

turns to Blackborow, at column 13, lines 25-45, for a teaching of selecting the next command to be executed from a buffer which contains new, unexecuted data.

The examiner concludes therefrom that it would have been obvious to modify the disk drive system taught by APA and Bertschy "to include the buffering in the disk drive system of Blackborow...because this allows the computer to continue to read new data while it is simultaneously executing another command, as taught by Blackborow..." (answer-page 5).

It is appellants' position that while APA shows a start operation for a storage unit which includes the step of generating correct tension data prior to allowing access to the storage unit by the computer, it does not show or suggest reading stored tension data for the flexible cable. Thus, APA teaches that microcode is read during a start-up operation and that corrective tension data for the flexible cable is generated after reading the microcode, but there is no reading of stored tension data for the flexible cable, as claimed.

It is clear to us that neither Bertschy nor Blackborow teaches or suggests anything regarding tension data for a flexible cable in a disk storage system. Accordingly, in order for the instant claimed subject matter to have been obvious, the suggestion for reading stored tension data must come from APA.

As seen from Figure 2 of APA, after reading microcode, there is generation of corrected tension data of a flexible cable, followed by an executable access command. There is, however, no suggestion of "reading microcode **and stored tension data for the flexible cable**" [emphasis added], as required by the instant claims.

Since the examiner did not address this claim limitation, a prima facie case of obviousness has not been established and we will not sustain the rejection of claims 1-6 under 35 U.S.C. §103.

The examiner's decision is reversed.

REVERSED

KENNETH W. HAIRSTON Administrative Patent Judge	)	
ERROL A. KRASS Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
HOWARD B. BLANKENSHIP Administrative Patent Judge	)	

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